Title (en)

Wafer and surface acoustic wave device

Title (de)

Halbleiterscheibe und Oberflächenwellenfilter

Title (fr)

Plaquette et filtre à ondes acoustiques de surface

Publication

EP 0810725 A3 19991027 (EN)

Application

EP 97303330 A 19970516

Priority

- JP 2854797 A 19970128
- RU 96110002 A 19960529

Abstract (en)

[origin: EP0810725A2] A surface acoustic wave device capable of exhibiting high temperature stability and being downsized includes a wafer constructed of a trigonal lanthanum/gallium silicate crystal cut out at predetermined cut angles (alpha , beta). Application of a predetermined voltage signal to the wafer permits a surface acoustic wave to be excited in the wafer and propagate in the wafer. Supposing that the crystal has three crystal axes including an X-axis (electric axis), a Y-axis (mechanical axis) and a Z-axis (optical axis), the wafer is cut out so that a normal line (n) on a surface of the wafer has the cut angle alpha defined to be 20 DEG ≤ alpha ≤<40 DEG with respect to the Y-axis in a counterclockwise direction from the Y-axis in a Y-Z plane and a propagation direction (S) of the surface acoustic wave has the cut angle beta defined to be 35 DEG ≤ beta ≤70 DEG with respect to the X-axis in a counterclockwise direction from the X-axis in the surface of the wafer. <IMAGE>

IPC 1-7

H03H 9/02

IPC 8 full level

H03H 9/02 (2006.01); **H03H 9/25** (2006.01)

CPC (source: EP US)

H03H 9/0259 (2013.01 - EP US); **H03H 9/25** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

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DOCDB simple family (application)

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